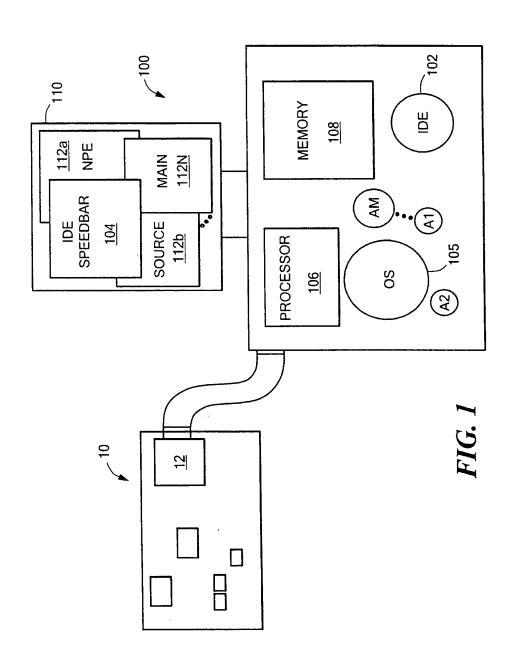


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SYSTEM AND METHOD FOR EMBEDDED PROCESSOR FIRMWARE DEVELOPMENT Dan M. White Appl. No. 10/748,427 Replacement Sheet

Symbols for txpcr.o on npe0	PSM data for npe0	
Collanse All View Source R File Imem	File Imem Dmem Debug	View Tools
Company the contract of the co	000c240	mov32 d0,#0x4 lin
data_label Bar 0x0004	0123456789ABCDEF0123456789ABCDEF 00001010100000000111000011001101	789ABCDEF 204
pkthdr2 0x4 (0x4)=0xXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0123456789ABCDEF0123456	0123456789ABCDEF0123456789ABCDEF01234567890ABCDEF012
.pkthdr1 0x13 (0x10)=0xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		Physical registers in npe0 Data registers
	6d 000000000	252
pktffdis oxzz (ozzo)-oxzz (oxzo).	p2 00000000 p10 00000000 p18 0000000000000	00000000 p18 00000000 p26 00000000 d8 00 00 00 00 00 00 00 00 00 00 00 00 00
+ -struct W;/cmodels/npe0_sw_t	0000000p11	58 88 88
. pkthdr4 0x39 (0x38)=0xXXXXXXXXXX	p5 00000000 p13 00000000	00000000 p21 00000000 p29 00000000 d20 00 00 00 00 00 00 00 00 00 00 00 00000
	00000000p15	p31
data_label ConfigTable1(word) 0X50 (0X50)	Context	Context stack in npe0 Context sto
data_label ConfigTable2(word) 0X68 (0X68	txpcr.s	
data label Config Table5(word) 0X84 (0X84 w.cmodels/npe0_sw_tbwin32/bpccs Step in cx(F7) +1(F6)	W:/cmodels/npe0_sw_tb/win32/txpcr.s	Step in ctx(F7) +1(F6) +2 +10 +100 +1000 Go(F5) Stop(F12)
westport_npe0_sw_tb_vmod.sys /	000 mov32 d0,#0x4	dreg32 xxx = d0 mov32 xxx, #4
e Project History Units View Help		#include "\\.\include\psm2\cudjoe_
+2 +10 +100 +1000 GO STOP		.begin irea myirea=i2
code segment "nat", length=46 394 SYMBOLS, 0 UNRESOLVED		pointer myireg @ mypacket.pkthdr2
W./cmodets/mpe0_sw_tb/wn/32/txpcr.s.121:WARNING bode segment does nat brench:	001 mov32 d4,#0x4	mov32 myireg, #4
46 INSTRUCTIONS, 3BASIC BLOCKS, 15,333 INSTRUCTIONS PER BASIC	002 mov32 d4,#0x8	mov32 xxx, #8 .begin
Loseing segment "and it unknow-www.i		CodeLabel3 202
7 PSM2 ASSEMBLER WARKINGS ExecShowSiden c:npe_tools/nods/bin/windows/psm2e-1c/npc_tools/	003 nop	nop nop &&& LDUR=1
tools models/mpc0, sw., tww.nd.20/topco.s.o txpor npe0 mig. instruction, memory 4096 txpcr. o noed mid. data memory 8192 txpcr. data	005 mov32 d0,##0x3 006 mov32 d8,#0x8	mov32 d0, ##CodeLable3 mov32 myireg, #8
	007 mov32 d0,#0x4	mov32 d0. #4 end
		▲

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			4		•	▲	
	() - el2/2 13000	RESET cycle:	code segment "run", length=54 404 SYMBOLS,0 UNRESOLVED C:/npe_tools/tools/cmodels/npe0_sw_tb/win32/txpcr:s143:WARNING code segment does not end in an unconditional branch: nop 54 INSTRUCTIONS, 3 BASIC BLOCKS, 18,000 INSTRUCTIONS PER BASIC BLOCK.		ExecShowStderr c:/npe_tools/toots/bin/windows/psm2a-1c/npe_tools/tools/include/psm2-G-1-2.1 -DNPEQ_BUILD_0_1 C:/npe_tools/tools/cmodels/npe0_sw_tb/win32/txpcr.s-o txpcr npe0_init_instruction_memory 4096 txpcr.o npe0_init_data_memory 8192 txpcr.data		
syst	View Help	+1000 GO STOP	code segment "run", length=54 404 SYMBOLS,0 UNRESOLVED C:/npe_tools/tools/cmodels/npe0_sw_tb/win32/txpcr:s143:WARNING code segment do in an unconditional branch: nop 54 INSTRUCTIONS, 3 BASIC BLOCKS, 18,000 INSTRUCTIONS PER BASIC BLOCK.	Loading segment "run" at 0x0000-0x0035 Loading data segment "data" at 0x0000 0 PSM2 ASSEMBLER ERRORS 8 PSM2 ASSEMBLER WARNINGS		ExecShowStderr c:/npe_tools/tools/bin/windows/psm2a-1c/npe_tools/tools/include/ -DNPE0_BUILD_0_1 C:/npe_tools/tools/cmodels/npe0_sw_tb/win32/txpcr.s-o txpcr npe0 init_instruction_memory 4096 txpcr.o npe0 init_data_memory 8192 txpcr.data	
westport_npe0_sw_tb_vmod.syst	History Units	+100 +1000	code segment "run", length=54 404 SYMBOLS,0 UNRESOLVED C:/npe_tools/tools/cmodels/npe0. in an unconditional branch: nop 54 INSTRUCTIONS, 3 BASIC BL	Loading segment "run" at 0x0000-0x Loading data segment "data" at 0x0 0 PSM2 ASSEMBLER ERRORS 8 PSM2 ASSEMBLER WARNINGS		ExecShowStderr c:/npe_tools/tools/bin/-DNPE0_BUILD_0_1 C:/npe_tools/toolsnpe0 init_instruction_memory 4096 txpcnpe0 init_data_memory 8192 txpcr.data	
ws_0ec	l	+10	segment SYMBOLS e_tools/to uncondition	ing segme ing data si M2 ASSEI W2 ASSEI		ShowStder E0_BUILD init_instructionit_data_i	
tport_np	Project	+5	code 404 S C:/np in an nopl	Loadi Loadi 0 PSI		Execs -DNPI npe0 i	
west	File	+		. 44.44			

FIG. 3

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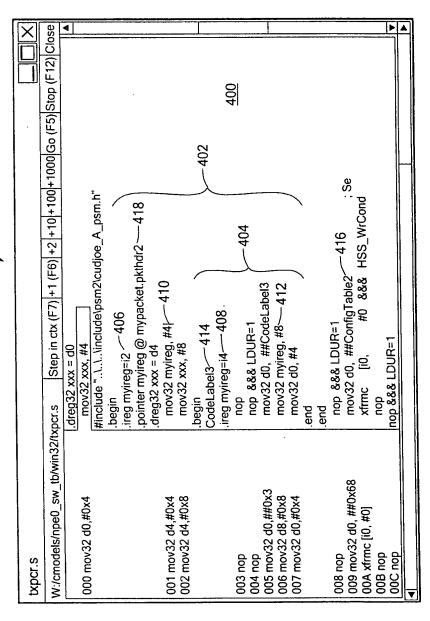


FIG. 4

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DOM (a) for a second	
PSM data for psma	
File Irnem Dmem Debug View Tools	
0x000d 0x1000000b	nop
0123456789ABCDEF0123456789ABCDEF	,
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
0123456789ABCDEF0123456789ABCDEF0123456789AB 000000000000000111111111100000000111111	CDEF0123456789ABCDEF 1101011100000000000000
Physical registers in psma	Data registers Index registers
p0 00000000 p8 00000000 p16 00000000 p24 000000	00 do 00 00 00 io 0000 0000
p1 00000000 p9 00000000 p17 00000000 p25 000000	00 d4 00 00 00 00 i2 0000 0000
p2 00000000 p10 00000000 p18 00000000 p26 000000	00 d8 00 00 00 00 l4 0000 0000
p3 00000000 p11 00000000 p19 00000000 p27 000000	00 d12 00 00 00 00 00 d16 00 00 00 00 i6 0000 0000
p4 00000000 p12 00000000 p20 00000000 p28 000000	00 0,0 00 00 00 00
p5 00000000 p13 00000000 p21 00000000 p29 000000	00 000 00 00 00
p6 00000000 p14 00000000 p22 00000000 p30 000000 p7 00000000 p15 00000000 p23 00000000 p31 000000	100
	Context store in psma
Context stack in psma APCctxt Stevt CZI durSloxtRepNext PCJump PCSTICK	Ctx Stevt St PC Cndx RegMap
APCctxt Stevt CZLdurSlcxtRepNext PCJump PCSTICK 00 0 to , 00 01 0 0 1 000 000 10 1 1	0 00 p0 p2 p4
00 0 off, 00 00 0 1 000 000 10 1 1	1 off,00 000 00 p0 p2 p4
00 0 off, 00 00 0 1 000 000 10 1 1	2 off,00 000 00 p0 p2 p4
00 15 lo,0000 0 15 0 000 000 0011	3 off,00 000 00 p0 p2 p4
PSM control bits: ☐ IF ☐ IE ☐ SCH ☐ SO	4 off,00 000 00 p0 p2 p4
	5 off,00 000 00 p0 p2 p4
	6 off,00 000 00 p0 p2 p4
	7 off,00 000 00 p0 p2 p4
500	8 off,00 000 00 p0 p2 p4
<u>500</u>	9 off,00 000 00 p0 p2 p4 10 pf,00 000 00 p0 p2 p4
	11 off,00 000 00 p0 p2 p4
	12 off,00 000 00 p0 p2 p4
	13 off,00 000 00 p0 p2 p4
	14 off,00 000 00 p0 p2 p4
	15 off,00 000 00 p0 p2 p4

FIG. 5

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- -W:/cmodels/npe0_sw_tb/win32/txpcr.s - -W:/cmodels/npe0_sw_tb/win32/txpcr.s - -W:/cmodels/npe0_sw_tb/win32/txpcr.s - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4 - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4 - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 1 46 4 -
- -W:/cmodels/npe0_sw_tb/win32/txpcr.s data_label Bar 0x0004
data_label Bar 0x0004 - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4 .pkthdr2 0x4 (0x4)=0xXXXXXXX .pkthdr1 0x13 (0x10)=0xXXXXXXXX .mp - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4 .pkthdr3 0x22 (0x20)=0xXXXXXXXX .pkt6 + -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4 .pkthdr4 0x39 (0x38)=0xXXXXXXXX .pkt1 + -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4 data_label ConfigTable1(word) 0X50 (0X50)=0XFFFFFFF data_label ConfigTable2(word) 0X68 (0X68)=0XFFFFFFF data_label ConfigTable91(*) (word) 0X0 (0X0)=0X20 data_reg xxx d0(word) (d0)=00 00 00 00 data_reg region53.xxx d4(word) (d4)=00 00 00 00 — 608 index_reg region53.xxx d4(word) (d4)=00 00 00 00 — 604 index_reg region53.rsy d4(word) (d4)=00 00 00 00 — 604 index_reg region53.rsy ireg i2 (i2)=0000 0000 — 604 index_reg region53.rsy ireg i2 (i2)=0000 0000 — 604 index_reg region53.rsy ireg i2 (i2)=0000 0000 — 606 code_label Codelabel3=0x0003 — 600 code_label end=0x002a — 602 + -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4 + -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4 _pkthdr3 0x0 _pkt6 + -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
.pkt1 - -struct W:/smodels/npe0_sw_tb/win32/txpcr.s:p3 8 4 - -struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4

FIG. 6

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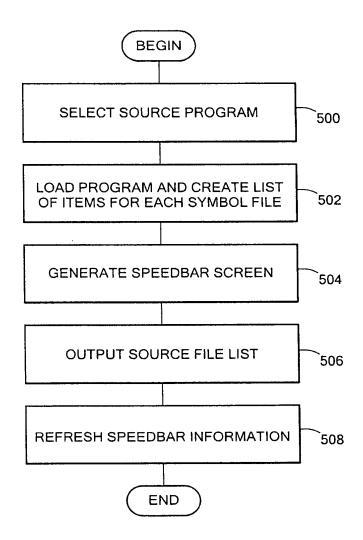


FIG. 7

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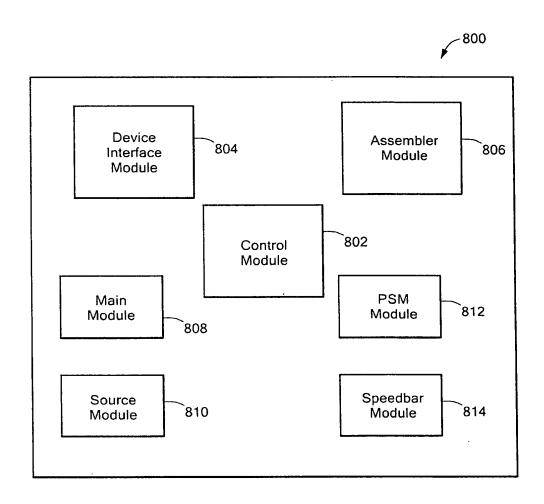


FIG. 8